

CLAIMS

1. (Currently amended) An image compensation method, comprising:
providing a light source to produce light having a first selected color content;
providing a carrier having a plurality of grooves formed thereon and a plurality of reflecting elements disposed thereon, wherein the grooves are formed on the surface of the carrier and the reflecting elements are disposed on surfaces of the carrier inside the grooves, wherein the light source is disposed in a first one of the grooves, and each reflecting element is arranged to, if aligned with the light source, to reflect ~~reflects~~ at least a portion of the produced light from the light source to produce a beam of light biased towards a second color content different from the first selected color content, wherein reflecting elements are arranged to direct the reflected beam of light ~~travels~~ to a scanning location;
moving either the carrier or the light source so that the light source is displaced from the groove;
rotating the carrier so that a second different ~~the~~ one of the groove openings aligns with the light source; and
moving either the carrier or the light source so that the light source is disposed in the second ~~another~~ groove.
2. (Currently amended) The method of claim 1, wherein ~~the color content of the~~ light reflected from at least one of the reflecting elements is biased towards red.
3. (Currently amended) The method of claim 1, wherein ~~the color content of the~~ light reflected from at least one of the reflecting elements is biased towards blue.
4. (Previously Presented) The method of claim 1, wherein the carrier is rotated within an imaging device.

5. (Previously presented) The method of claim 1, wherein the light source comprises a daylight lamp.

6. (Currently amended) The method of claim 1, wherein at least one of the reflecting elements includes a reflecting region having such that a width at both ends that of the reflecting region is greater than a width in a middle of the reflecting region.

7. (Previously presented) The method of claim 1, wherein at least one of the reflecting elements includes multiple sections.

8. (Currently amended) The method of claim 1 ~~[[7]]~~, wherein at least one of the reflecting elements is partitioned into a plurality of regions and at least one of the regions is configured to reflect light having a different color bias than light reflected from first color content different from a second color content associated with another region.

9. (Previously Presented) The method of claim 1, wherein at least one of the reflecting elements is configured to reflect light having a color content biased toward a single color, or a mix of two or more colors.

10. (Currently amended) An image compensation method for illuminating a document comprising:

providing a plurality of light sources;

providing a carrier having a plurality of grooves formed thereon and a plurality of reflecting elements disposed thereon, wherein the grooves are formed on the surface of the carrier and the reflecting elements are disposed on the surface of the carrier inside the grooves, wherein the light sources are disposed inside the ~~respective~~ grooves, wherein each reflecting element is operable to reflect ~~reflects~~ light from a corresponding one or the light sources to produce a reflected light having a different color content than the light from the corresponding light source; and

~~rotating the carrier so that wherein the reflecting elements are positioned to reflect light reflected light from one or more of the reflecting elements travels~~ to the document.

11. (Currently amended) The method of claim 10, further comprising rotating wherein the plurality of light sources and the carrier is ~~rotated~~ inside the scanner.

12. (Previously Presented) The method of claim 10, wherein the color content of the light reflected from at least one of the reflecting elements is biased towards blue.

13. (Previously Presented) The method of claim 10, wherein the color content of the light reflected from at least one of the reflecting elements is biased towards green.

14. (Previously presented) The method of claim 10, wherein the light source comprises a daylight lamp.

15. (Currently amended) The method of claim 10, wherein at least one of the reflecting elements includes a reflecting region having such that a width at both ends of the ~~reflecting region that~~ is greater than a width in a middle of the reflecting region.

16. (Previously presented) The method of claim 10, wherein at least one of the reflecting elements includes multiple sections.

17. (Currently amended) The method of claim 10 [[16]], wherein at least one of the reflecting elements is partitioned into a plurality of regions and at least one of the regions corresponds to ~~comprises~~ a single color, and the plurality of regions corresponds to ~~comprises~~ a mix of two or more colors.

18. (Previously Presented) The method of claim 10, wherein light reflected from at least one of the reflecting elements comprises a mix of two or more colors.

19. (Currently amended) An image compensation method, comprising:
~~disposing a light source and a corresponding reflecting element on a carrier, the light source being adapted to provide light to a scanning location;~~

disposing a plurality of light sources and corresponding reflecting elements on a carrier such that when one of the light sources is powered to provide light, a corresponding reflecting element reflects a beam of light biased towards a particular color content; and

disposing a plurality of reflecting elements on a supporting frame, wherein at least one of said reflecting elements is adapted to reflect light provided by the light source and reflect a beam of light biased towards a particular color; and

positioning the plurality of reflecting elements so that one of the reflecting elements is in a position to reflect light provided by the light source and provide the reflected beam of light to the scanning location, ~~wherein the light source, the supporting frame and the scanning location are positioned to form a substantially triangular configuration.~~

20. (Cancelled)

21. (Currently amended) The method of claim 19, wherein the reflected beam of light ~~reflected from at least one of the reflecting elements~~ is biased towards the color red.

22. (Previously Presented) The method of claim 19, wherein the beam of light is reflected within a scanner.

23. (Currently amended) The method of claim 19, wherein the reflected beam of light ~~reflected from at least one of the reflecting elements~~ is biased towards the color green.

24. (Previously presented) The method of claim 19, wherein the light source comprises a daylight lamp.

25. (Cancelled)

26. (Currently amended) An apparatus, comprising:
means for disposing a light source ~~and a corresponding reflecting element~~ on a carrier;
means for positioning ~~disposing a reflecting element~~ plurality of reflecting elements on ~~the carrier~~ a supporting frame, wherein the reflecting element ~~at least one of said reflecting~~

elements is adapted to reflect at least a portion of the light transmitted by the light source in a beam of light and to bias the beam of light towards a selected color, the reflected light having a color bias different from the light source, wherein the reflecting element is positioned to direct the beam of light to a scanning location, wherein the light source and the scanning location form a substantially straight line configuration, and the light source is positioned between the reflecting element and the scanning location; and

~~means for positioning the plurality of reflecting elements so that the beam of light travels to a scanning location, wherein the light source and the scanning location form a substantially straight line configuration, and the light source is positioned between the at least one reflecting element and the scanning location.~~

wherein the reflecting element includes a reflecting region, the reflecting region having a width at both ends that is greater than a width in a middle of the reflecting region.

27. (Cancelled)

28. (Currently amended) The apparatus of claim 26, wherein the ~~at least one~~ reflecting element includes multiple sections.

29. (Currently amended) The apparatus of claim 26, wherein the ~~at least one~~ reflecting element is partitioned into a plurality of regions and at least one of the regions corresponds to ~~comprises~~ a single color, and the plurality of regions corresponds to ~~comprises~~ a mix of two or more colors.

30. (Currently amended) The apparatus of claim 26, wherein the ~~at least one~~ reflecting element corresponds to ~~comprises~~ a single color.

31. (Currently amended) A carrier, comprising:
a groove having an interior surface; and
a reflecting element disposed on the carrier and coupled to the interior surface of the groove, the reflecting element having a reflecting region, the reflecting region having a width near ends of the reflecting region that is greater than a width in middle of the reflecting region a

plurality of regions, wherein ~~at least one region comprises a single color, at least one region comprises two colors and at least one region comprises a plurality of colors, wherein the reflecting element is configured adapted to reflect light having a first selected color content in a beam of light wherein the beam of light has a second color content different than the first selected color content and has a color biased towards at least one color selected from the group comprising: red, green or blue, wherein the reflecting element is arranged to direct the reflected beam of light reflected from the reflecting element is directed to an image to be scanned.~~

32-35. (Cancelled)

36. (Currently amended) An image compensation structure for a scanner, the image compensation structure comprising:

a light source disposed in the scanner and adapted to produce light having a first selected color content; and

a color compensating light compensator reflective element disposed in the scanner and adapted to reflect at least a portion of the light produced by the light source toward a scanning location, wherein the color compensating light compensator reflective element includes:

a supporting frame; and

a reflecting element disposed on the supporting frame, the reflecting element having a reflecting region with width at both ends that is greater than width in middle of the reflecting region, wherein the reflecting element is adapted to reflect light from the light source to produce a beam of light having a second color content different than the first selected color content, wherein the light source, the light compensator and the scanning location are positioned to form a triangular configuration.

37. (Previously Presented) The structure of claim 36, wherein the beam of light is biased, relative to the light produced by the light source, towards the color red.

38. (Previously Presented) The structure of claim 36, wherein the beam of light is biased, relative to the light produced by the light source, towards the color blue.

39. (Previously Presented) The structure of claim 36, wherein the beam of light is biased, relative to the light produced by the light source, towards the color green.

40. (Previously presented) The structure of claim 36, wherein the light source comprises a daylight lamp.

41-43. (Cancelled)

44. (Previously Presented) The structure of claim 36, wherein the reflecting element includes multiple sections.

45. (Currently amended) The structure of claim 36 [[44]], wherein the reflecting element is partitioned into a plurality of regions and at least one of the regions corresponds to ~~comprises~~ a single color, and the plurality of regions corresponds to ~~comprises~~ a mix of two or more colors.

46. (Currently amended) The structure of claim 36, wherein the reflecting element corresponds to ~~comprises~~ a single color.

47. (Currently amended) An image compensation method, comprising:
obtaining a response graph associated with a color content among three primary colors of light provided by a target light source by employing an optical sensor chip;

obtaining voltage values associated with the three primary colors for a given region of the optical sensor chip;

determining color content of a compensating light beam by employing the obtained response graph;

employing the obtained voltage values of the three primary colors to produce a [[a]] suitable strength for the compensating light beam; and

positioning a reflecting element proximate to a light source having a first color content so that the reflecting element is operable to reflect ~~reflects~~ light from the light source to produce a reflected beam of light having a second color content and a magnitude in accordance with the

compensating light beam, the reflecting element including a reflecting region having a width at both ends that is greater than a width in middle of the reflecting region, wherein the reflecting element is positioned to direct the reflected beam of light travels to a scanning location.

48. (Previously Presented) The method of claim 47, wherein the second color content is biased towards the color red relative to the first color content.

49. (Previously Presented) The method of claim 47, wherein the second color content is biased towards the color blue relative to the first color content.

50. (Previously Presented) The method of claim 47, wherein the second color content is biased towards the color green relative to the first color content.

51. (Previously presented) The method of claim 47, wherein the light source comprises a daylight lamp.

52. (Cancelled)

53. (Previously Presented) The method of claim 47, wherein the reflecting element includes multiple sections.

54. (Currently amended) The method of claim 47 ~~[[53]]~~, wherein the reflecting element is divided into a plurality of regions and at least one of the regions corresponds to ~~comprises~~ a single color, and at least one of the regions corresponds to ~~comprises~~ a mix of two or more colors.

55. (Currently amended) The method of claim 47, wherein the reflecting element corresponds to ~~comprises~~ a single color.

56. (Currently amended) The method of claim 47, wherein the light source and the reflecting element are positioned to direct light from the light source and reflected light from the

reflecting element ~~both converge~~ to a scanning location, wherein the light source, the reflecting element and the scanning location are positioned to form a substantially triangular configuration.

57. (Currently amended) An image compensation method, comprising:
obtaining a response graph of the color content of ~~the among~~ three primary colors of light provided by a target light source by employing an optical sensor chip;
obtaining voltage values associated with the three primary colors for a given region of the optical sensor chip;
determining color content of a compensating light beam by employing the obtained response graph;
employing the obtained voltage values of the three primary colors to identify ~~produce~~ a compensating beam having a suitable strength; and
positioning a reflecting element proximate to the light source so that the light reflected from the reflecting element light has a color content and a magnitude in accordance with the compensating beam;
wherein the light source and the reflecting element are arranged to direct light from the light source and reflected light from one of the reflecting elements ~~both converge~~ to a scanning location, wherein the reflecting elements, the light source and the scanning location form a substantially straight line configuration with the light source positioned between the reflecting elements and the scanning location.

58. (Previously Presented) The apparatus of claim 26 wherein the apparatus is a scanner.

59. (New) The carrier of claim 31 wherein the carrier is configured to be integrated into an imaging device.

60. (New) The carrier of claim 31 further comprising:
another groove having an interior surface; and
another reflecting element disposed on the carrier and coupled to the interior surface of the another groove.

61. (New) The carrier of claim 31 wherein the carrier is configured to be movably attached to an interior of an imaging device such that the carrier is rotatable within the imaging device.

62. (New) The carrier of claim 31 further comprising protrusions positioned at an upper region of the groove, the protrusions to removably secure a light generating component.

63. (New) The carrier of claim 31 wherein the reflective element comprises sputtered material.

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~~63.~~ (New) The carrier of claim 31 wherein the reflective element comprises reflective tape.